

KITAMURA, et al. 067880
ULTRASONIC-WELDING APPARATUS< OPTICAL
SENSOR AND ROTATION SENSOR FOR THE
ULTRASONIC-WELDING APPARATUS
Filed: January 16, 2002 (202) 293-7060
Darryl Mexic
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FIG. 1

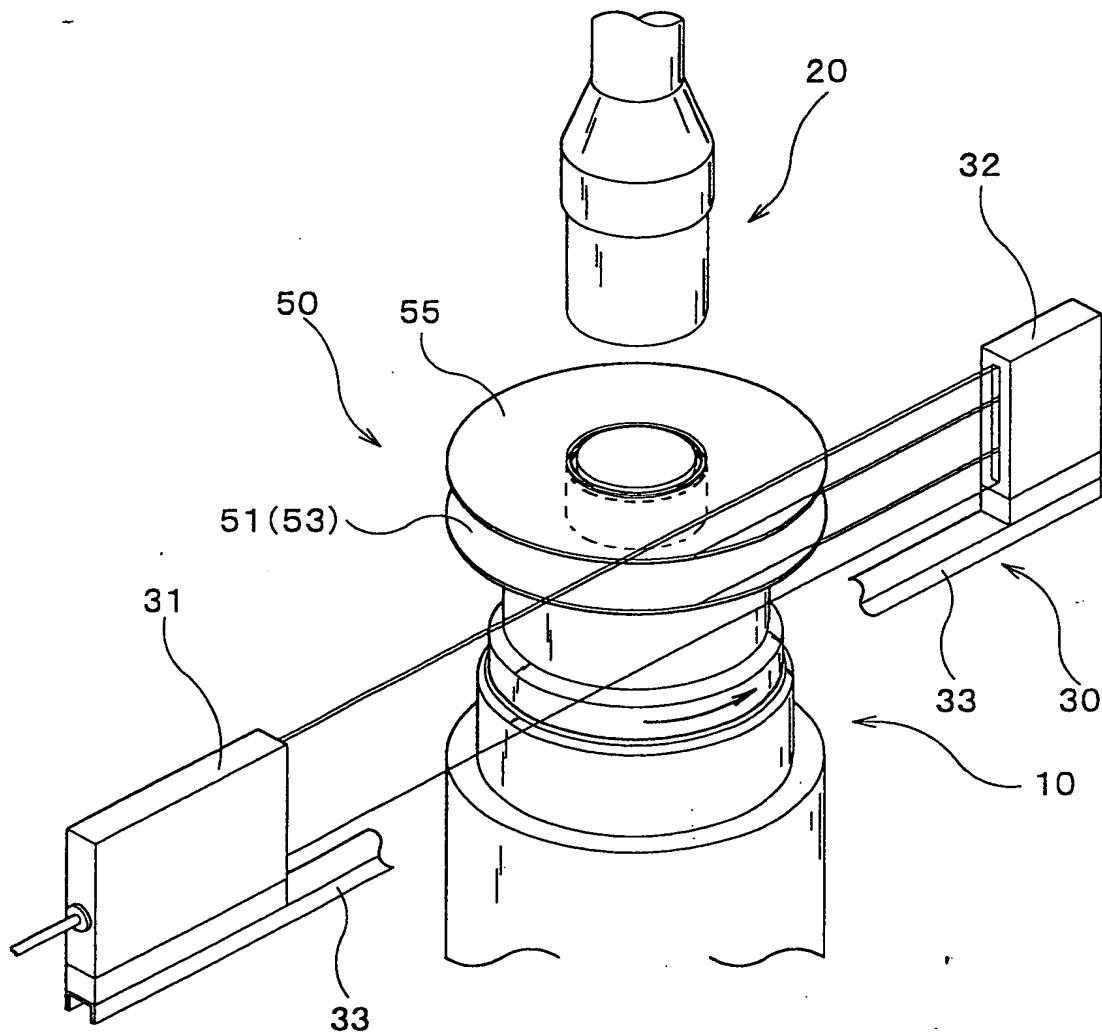


FIG.2

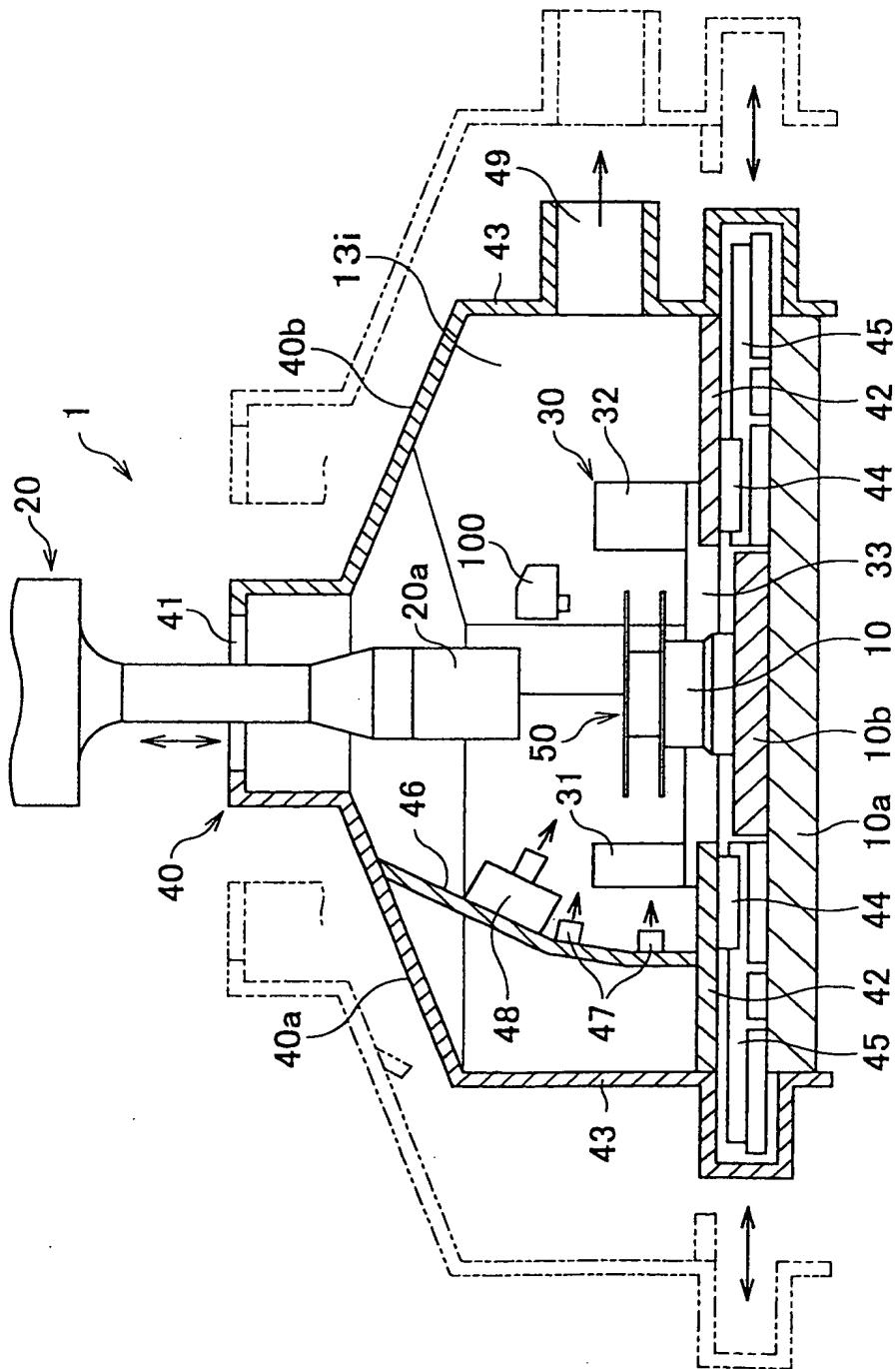


FIG. 3

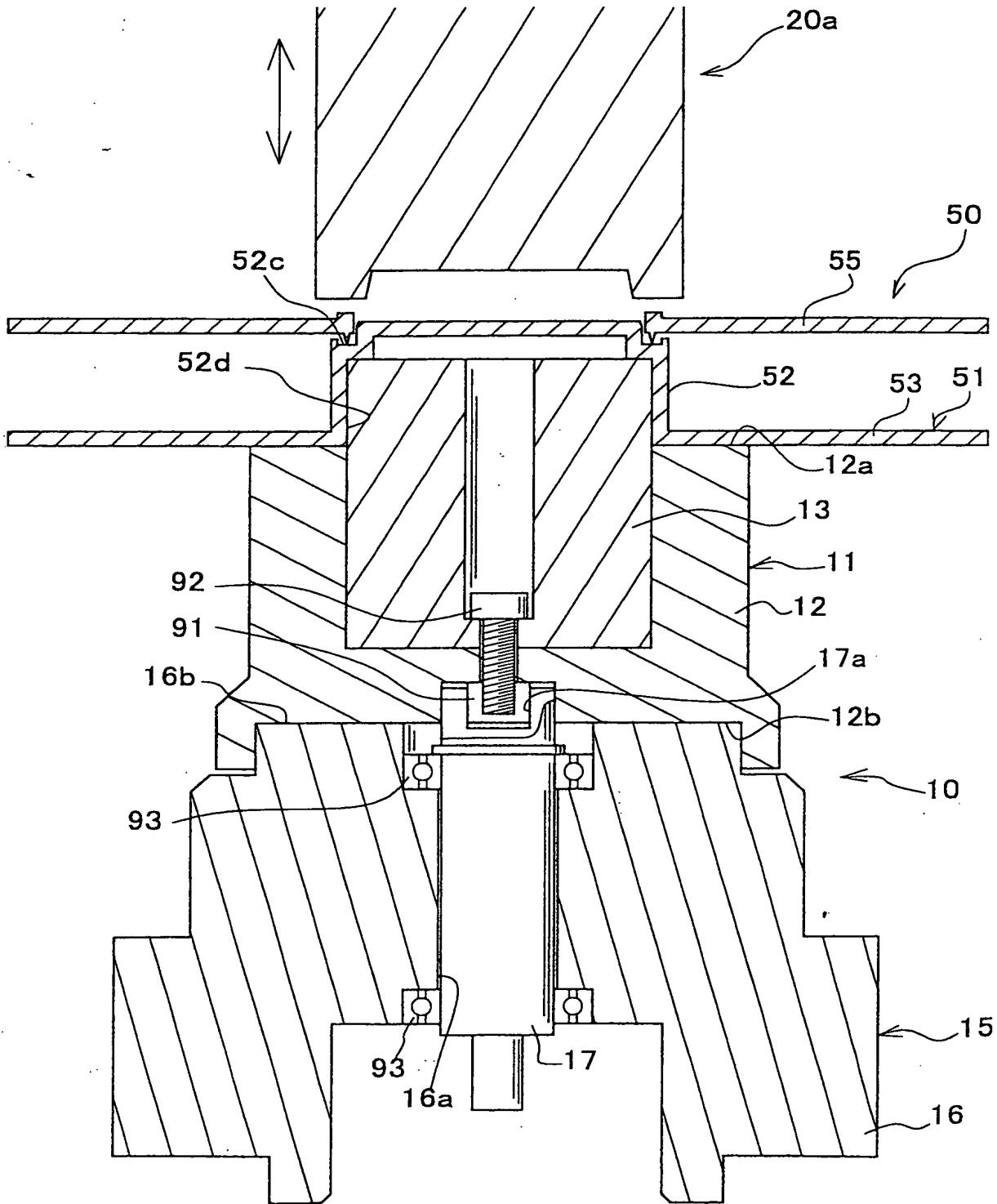


FIG.4

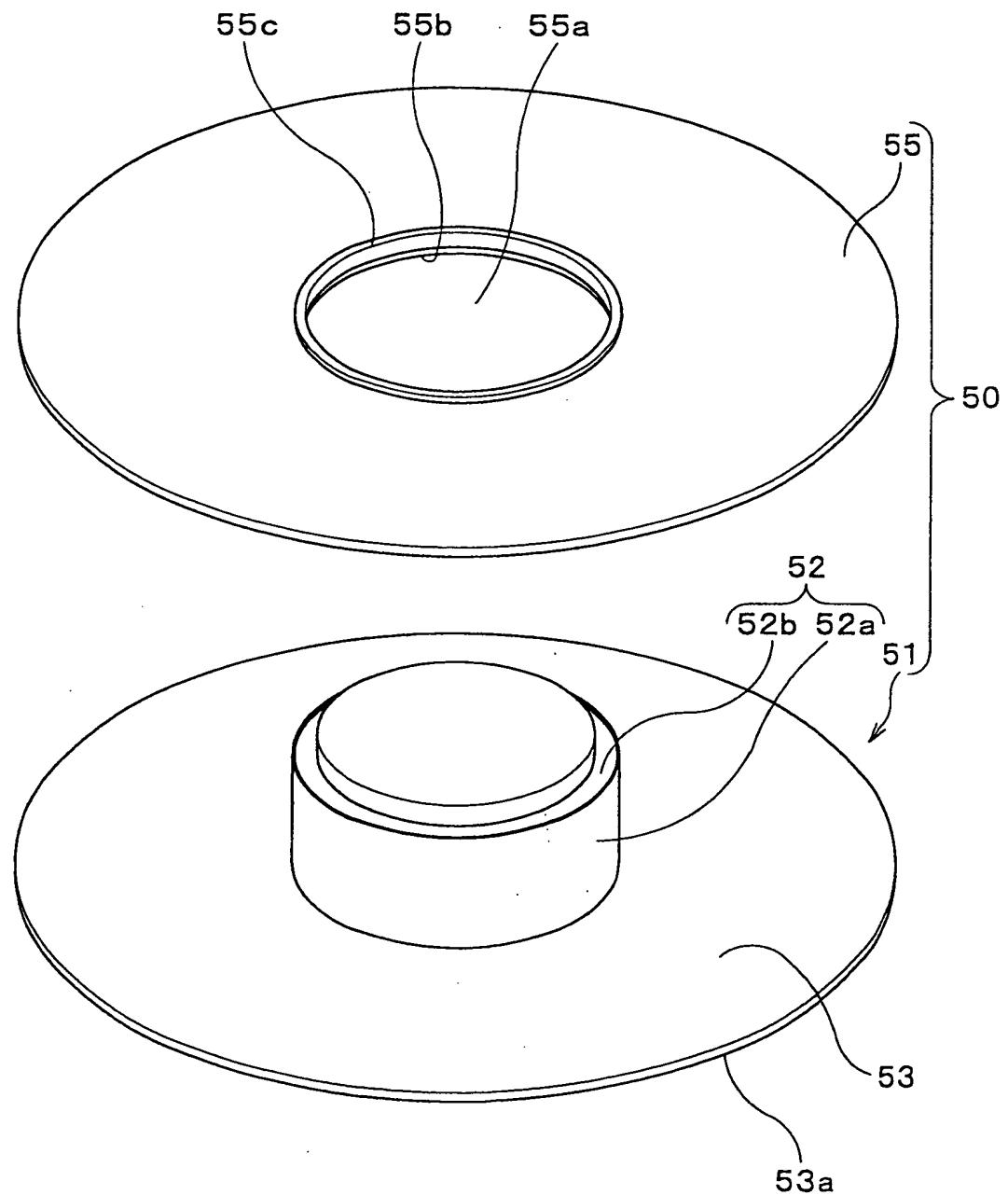


FIG.5

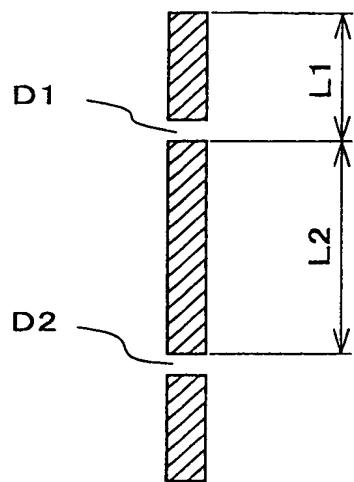


FIG.6

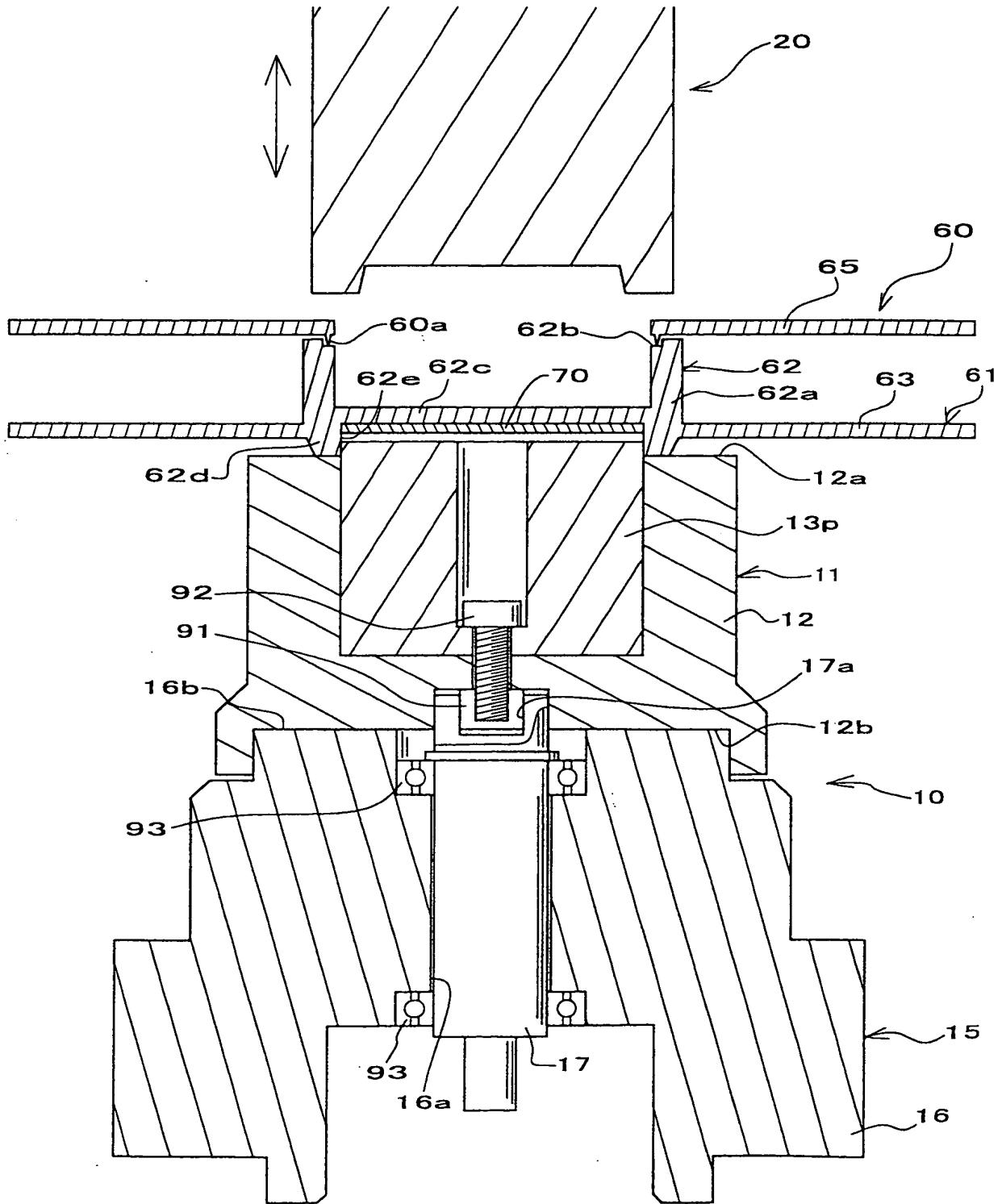


FIG. 7

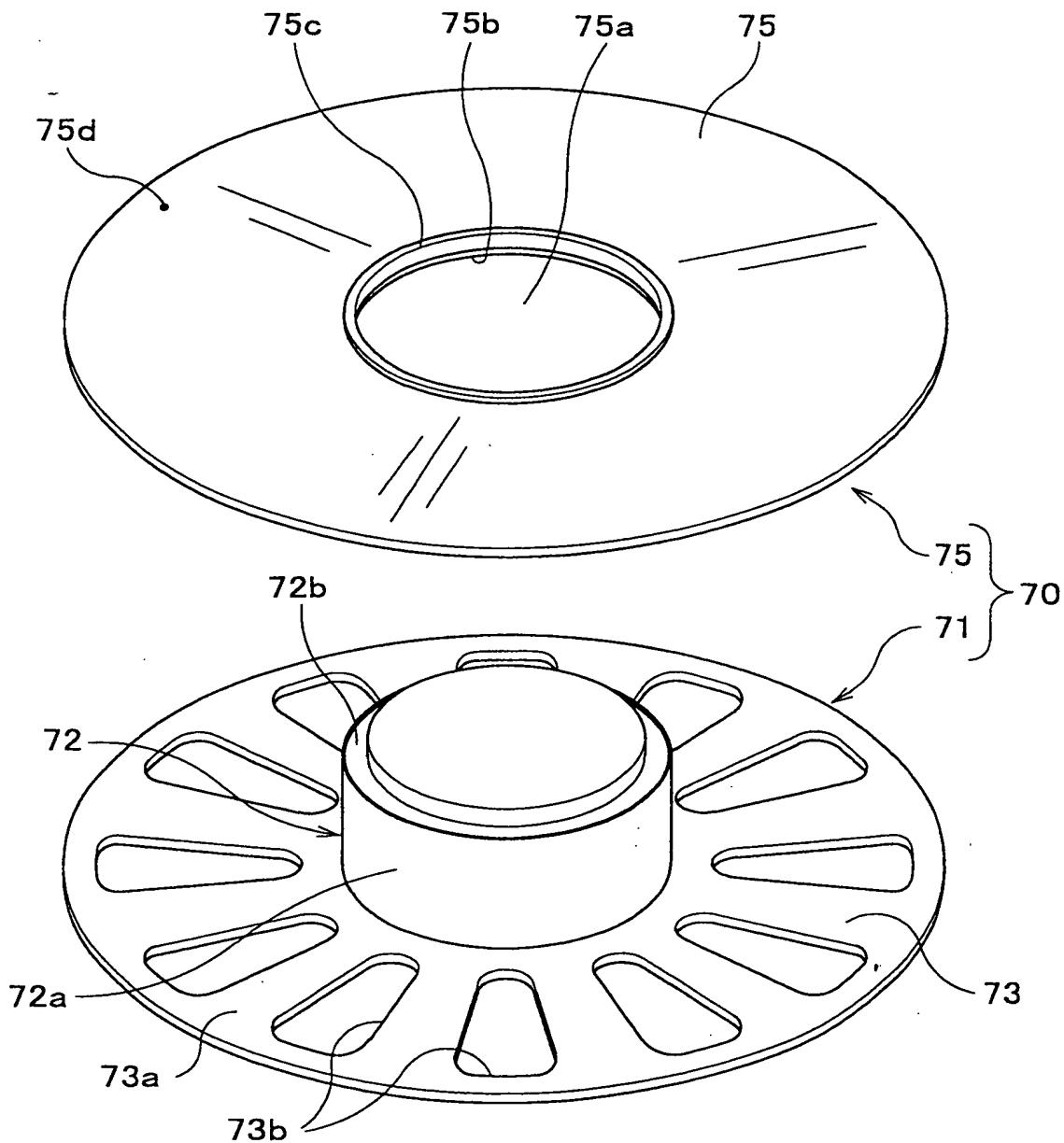


FIG. 8

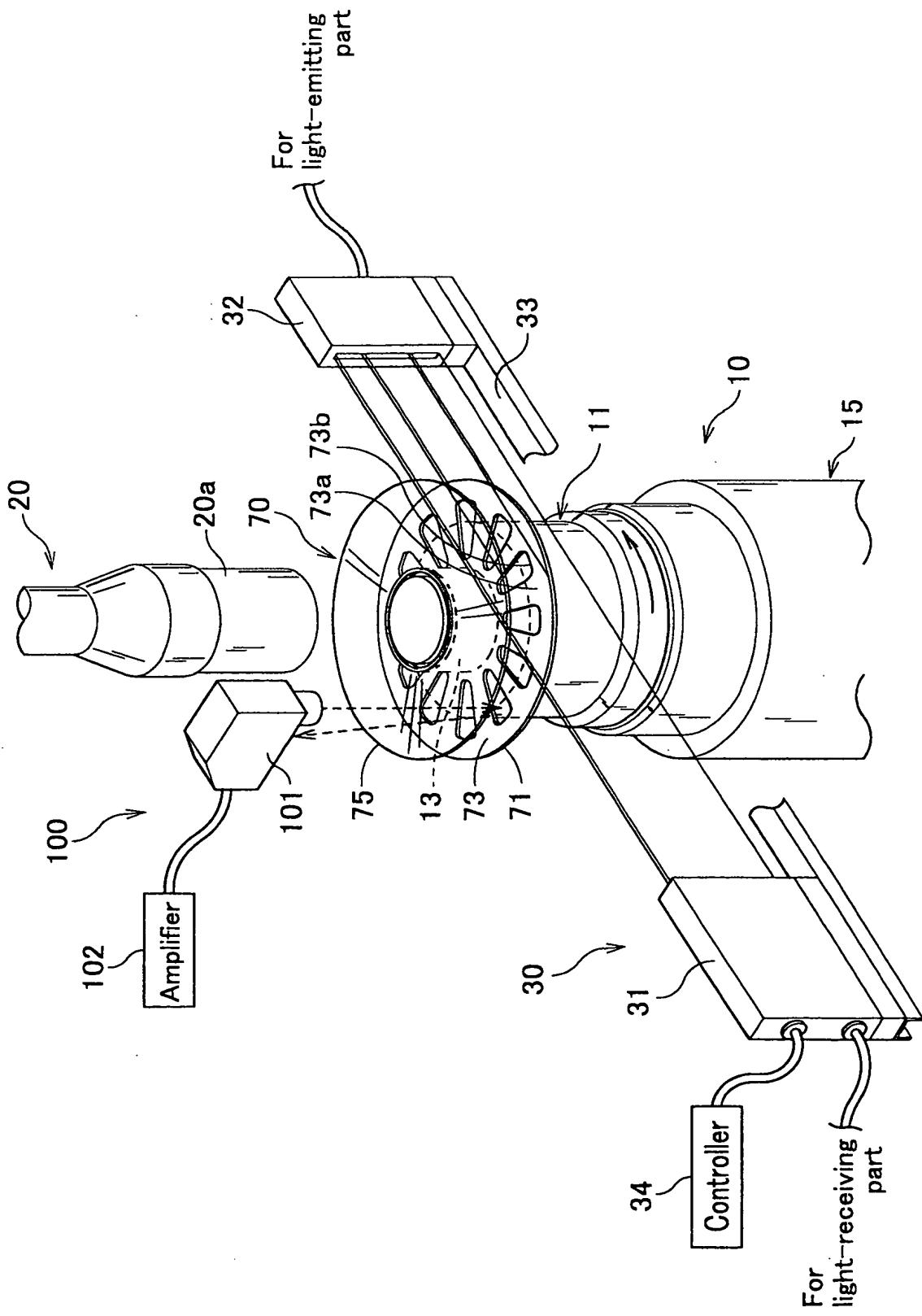


FIG.10A

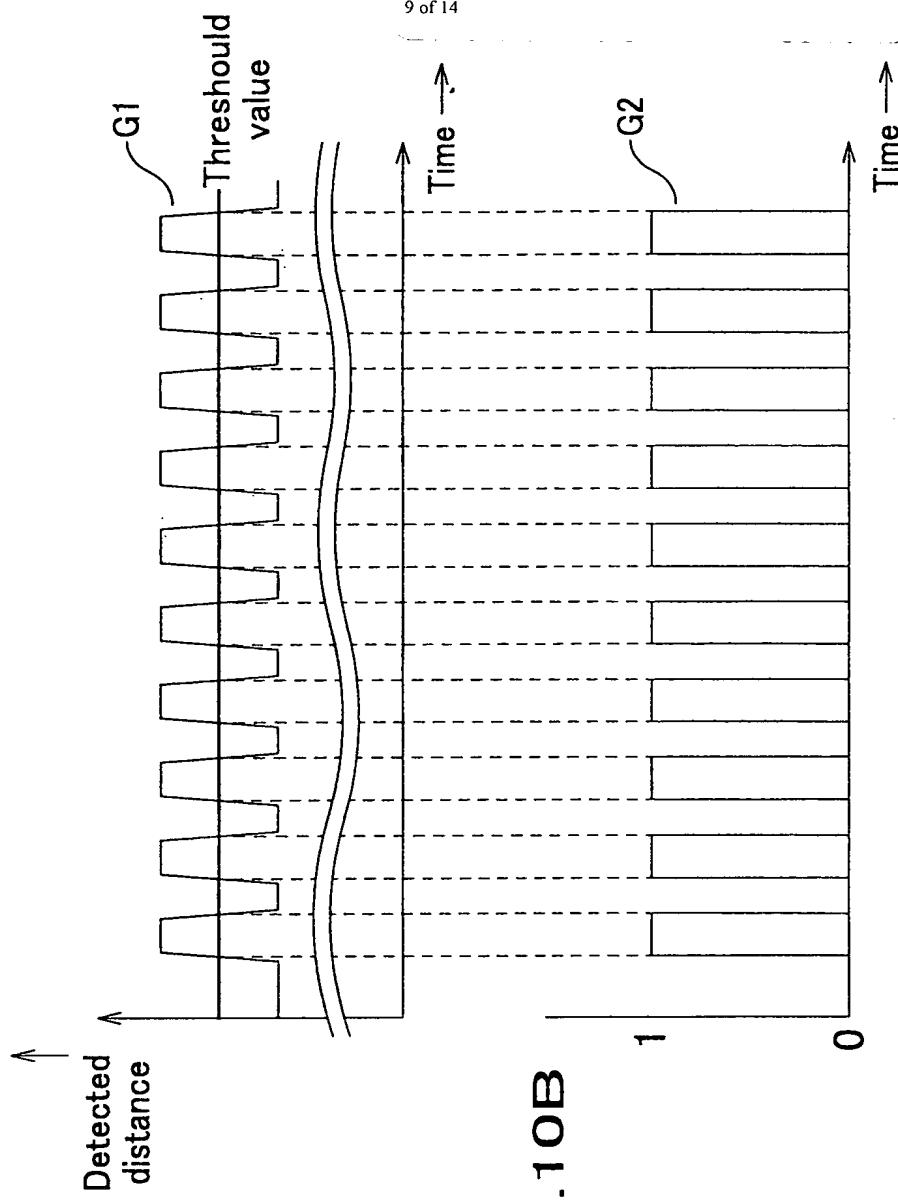


FIG.9

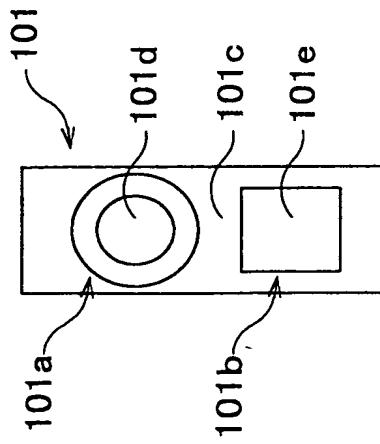


FIG.10B

FIG. 11

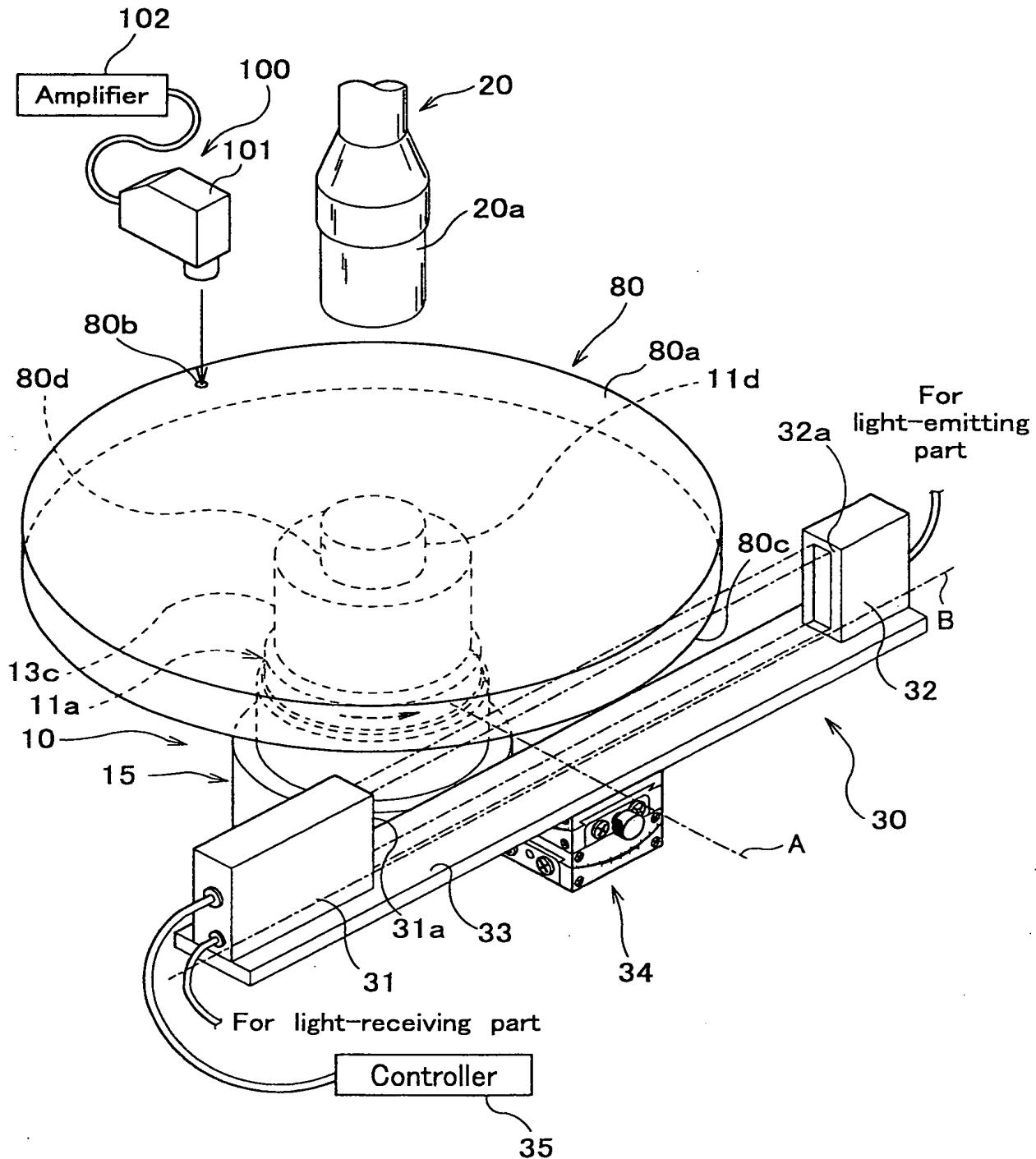


FIG. 12A

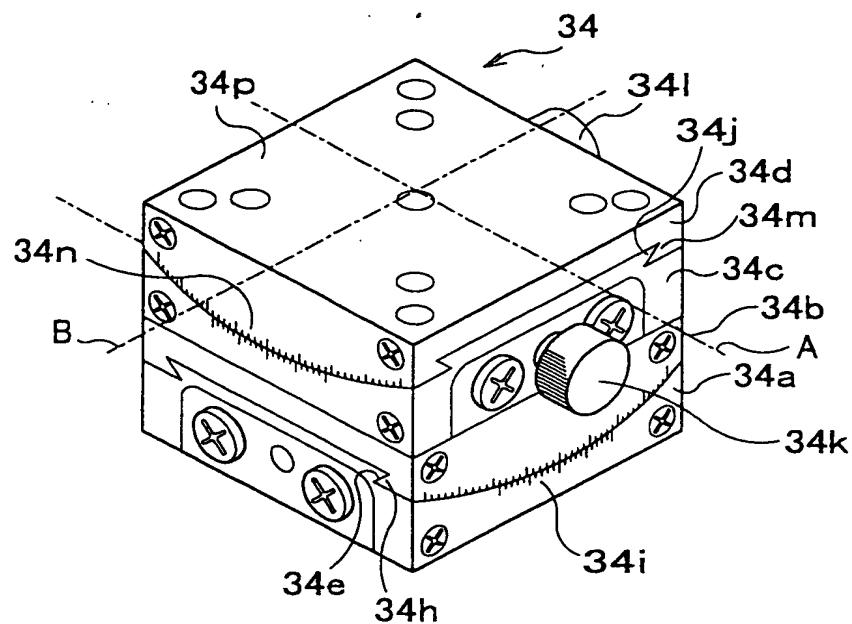


FIG. 12B

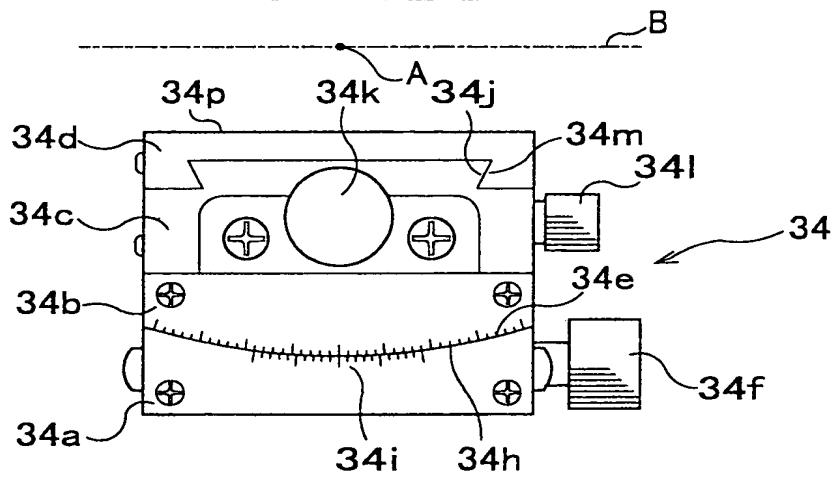


FIG. 12C

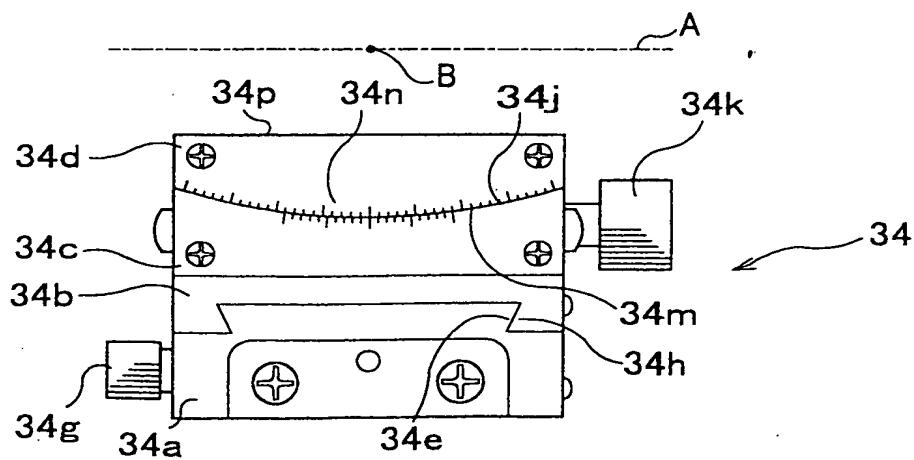


FIG. 13

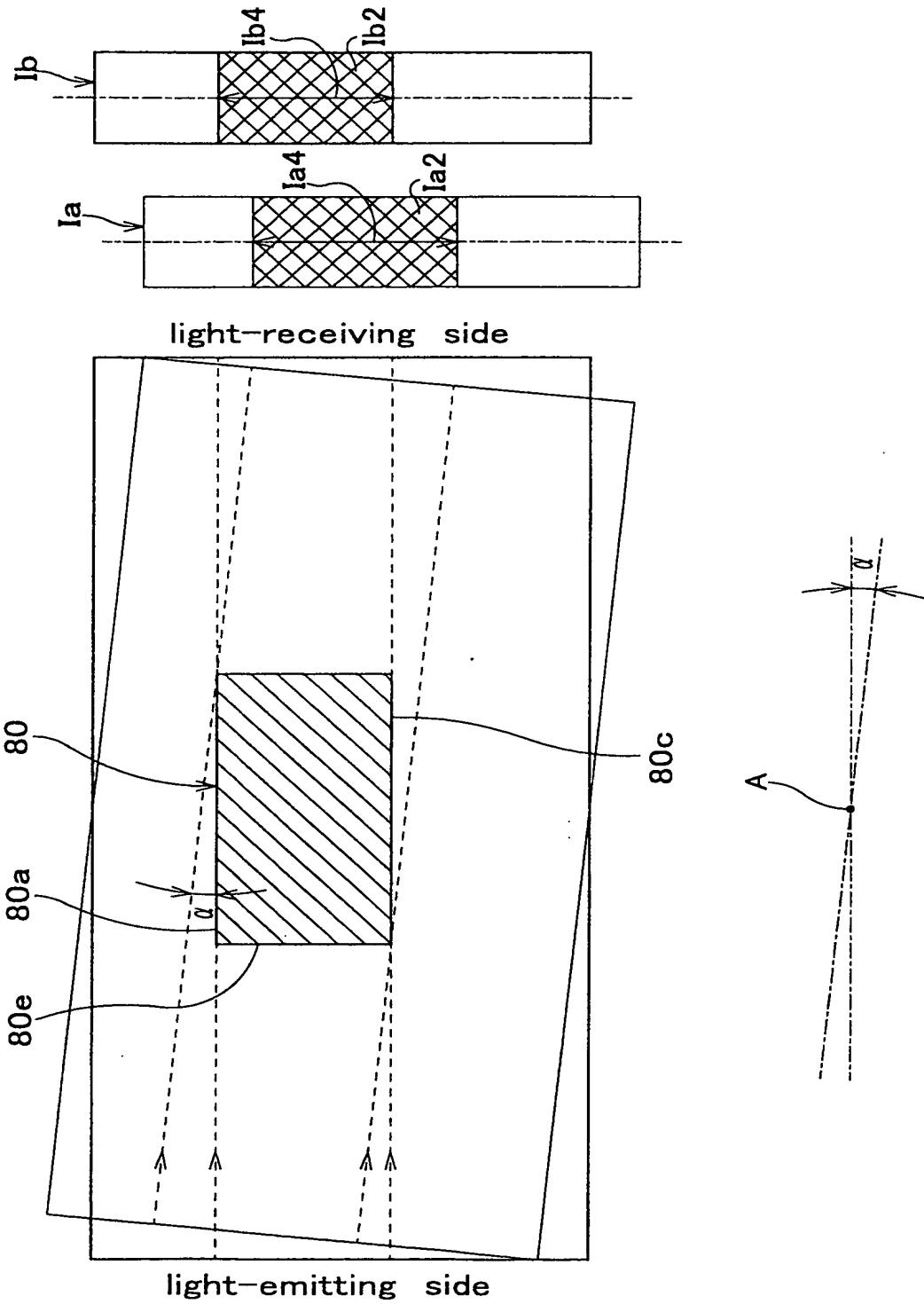


FIG. 14

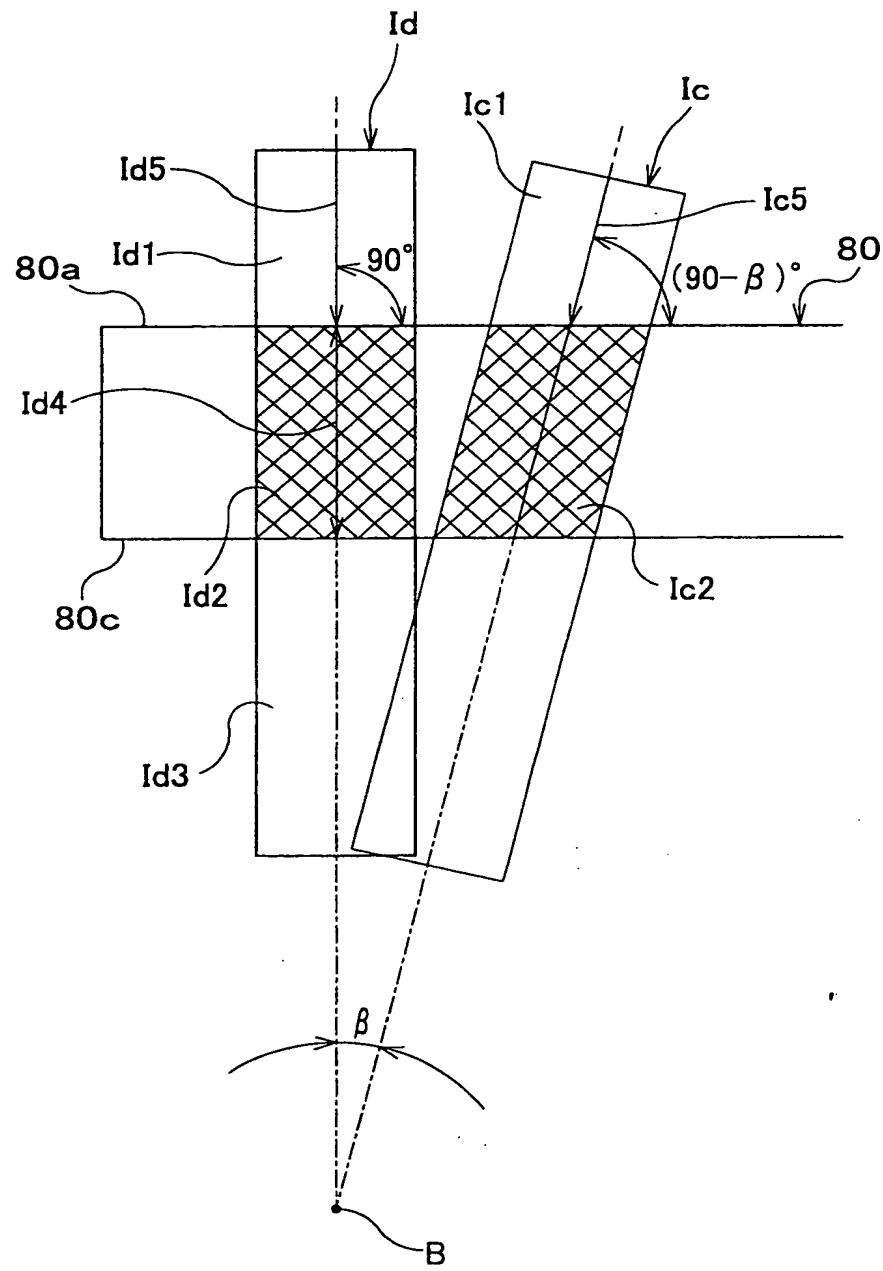


FIG.15

